

WHAT IS CLAIMED IS:

1           1.       An apparatus for dispensing a flexible conduit used to monitor or treat a  
2 physiological condition, the apparatus comprising:  
3           a flexible conduit housing including:  
4               a base for temporarily housing a flexible conduit, the base having an opening for  
5 receiving the flexible conduit; and  
6               a cover attached to the base for substantially closing the opening; and  
7           an interface for mounting the flexible conduit housing; and  
8           wherein the flexible conduit is dispensable with the flexible conduit housing to a fixable  
9 variable length.

1           2.       The apparatus of claim 1, wherein the physiological condition is diabetes.

1           3.       The apparatus of claim 1, wherein the flexible conduit is connectable to an  
2 infusion device.

1           4.       The apparatus of claim 1, further comprising an infusion device, and wherein the  
2 infusion device is connected to the flexible conduit to assist in dispensing a fluid.

1           5.       The apparatus of claim 1, wherein the flexible conduit comprises medical tubing.

1           6.       The apparatus of claim 1, wherein the flexible conduit comprises electrical cable.

1           7.       The apparatus of claim 1, wherein the flexible conduit is connectable to a  
2 medical sensor monitor.

1           8.       The apparatus of claim 1, further comprising a medical sensor monitor, and  
2 wherein the medical sensor monitor is connected to the flexible conduit to monitor an aspect of  
3 the physiological condition.

1           9.       The apparatus of claim 1, further including a replaceable cartridge for holding the  
2 flexible conduit that is engageable to the base.

1           10.      The apparatus of claim 9, wherein the replaceable cartridge includes a spool  
2 cartridge and the flexible conduit is wound on the spool cartridge.

1           11.     The apparatus of claim 9, wherein the replaceable cartridge includes a spool  
2 including a hub for engaging the flexible conduit at an adjustable position along a total length of  
3 the flexible conduit to adjust the fixable variable length.

1           12.     The apparatus of claim 9, wherein the flexible conduit is simultaneously  
2 dispensable from the replaceable cartridge from two ends.

1           13.     The apparatus of claim 1, wherein the flexible conduit housing further includes a  
2 spool for dispensing the flexible conduit to a fixable variable length.

1           14.     The apparatus of claim 13, wherein the spool includes a hub for engaging the  
2 flexible conduit at an adjustable position along a total length of the flexible conduit to adjust the  
3 fixable variable length.

1           15.     The apparatus of claim 13, wherein the spool includes a replaceable cartridge.

1           16.     The apparatus of claim 13, wherein the two ends of the flexible conduit are  
2 simultaneously dispensable from the spool.

1           17.     The apparatus of claim 1, further comprising a lockable spring driven winder  
2 mounted within the flexible conduit housing for dispensing the flexible conduit to the fixable  
3 variable length.

1           18.     The apparatus of claim 17, wherein the spring driven winder is lockable with a  
2 friction retainer.

1           19.     The apparatus of claim 17, wherein the spring driven winder is lockable with a  
2 ratchet retainer.

1           20.     The apparatus of claim 17, wherein the two ends of the flexible conduit are  
2 simultaneously dispensable from the lockable spring driven winder.

1           21.     The apparatus of claim 1, wherein the base and cover form a clamshell flexible  
2 conduit housing.

1           22.     The apparatus of claim 1, wherein the interface is coupleable to a device for  
2     dispensing a fluid through the flexible conduit.

1           23.     The apparatus of claim 1, wherein the interface is selected from a group  
2     including a clip, a strap, a clamp and a tape.

1           24.     An apparatus for storing a flexible conduit used to monitor or treat a  
2     physiological condition, the apparatus comprising:  
3         a flexible conduit housing;  
4         a flexible conduit; and  
5         a spool cartridge for holding the flexible conduit including a coupler for engaging the  
6     spool cartridge into the flexible conduit housing, wherein the flexible conduit housing dispenses  
7     the flexible conduit to a fixable variable length.

1           25.     The apparatus of claim 24, wherein the physiological condition is diabetes.

1           26.     The apparatus of claim 24, wherein the flexible conduit is connectable to an  
2     infusion device.

1           27.     The apparatus of claim 24, wherein the flexible conduit is medical tubing.

1           28.     The apparatus of claim 24, wherein the flexible conduit is connectable to a  
2     medical sensor monitor.

1           29.     The apparatus of claim 24, wherein the flexible conduit is electrical cable.

1           30.     The apparatus of claim 24, wherein the flexible conduit is wound on the spool  
2     cartridge and two ends of the flexible conduit are simultaneously dispensable.

1           31.     The apparatus of claim 24, wherein the spool cartridge includes a hub with a  
2     passage for engaging the flexible conduit at an adjustable position along a total length of the  
3     flexible conduit to adjust the fixable variable length.

1           32.     The apparatus of claim 24, further comprising a lockable spring driven winder  
2     for dispensing the flexible conduit to the fixable variable length.

1           33.     The apparatus of claim 32, wherein the spring driven winder is lockable with a  
2 friction retainer.

1           34.     The apparatus of claim 32, wherein the spring driven winder is lockable with a  
2 ratchet retainer.

1           35.     A method of dispensing flexible conduit to assist in dispensing a fluid or  
2 monitoring a physiological condition, the method comprising the steps of:  
3         providing a flexible conduit housing including:  
4             a base for temporarily housing a flexible conduit, the base having an opening for  
5         receiving the flexible conduit; and  
6             a cover attached to the base for substantially closing the opening; and  
7         mounting the flexible conduit housing with an interface; and  
8         dispensing the flexible conduit with the flexible conduit housing to a fixable variable  
9 length.

1           36.     The method of claim 35, wherein the fluid is insulin.

1           37.     The method of claim 35, further comprising providing an infusion device; and  
2 connecting the flexible conduit to the infusion device to assist in dispensing a fluid.

1           38.     The method of claim 35, wherein the flexible conduit is connectable to an  
2 infusion device.

1           39.     The method of claim 35, wherein the flexible conduit is medical tubing.

1           40.     The method of claim 35, further comprising providing a medical sensor monitor  
2 and connecting the flexible conduit to a medical sensor monitor to assist in monitoring an aspect  
3 of the physiological condition.

1           41.     The method of claim 35, wherein the flexible conduit is connectable to a medical  
2 sensor monitor.

1           42.     The method of claim 35, wherein the flexible conduit is electrical cable.

1           43.     The method of claim 35, further comprising providing a replaceable cartridge,  
2     and wherein the base is engageable to the replaceable cartridge for holding the flexible conduit.

1           44.     The method of claim 43, wherein the replaceable cartridge includes a spool  
2     cartridge and the flexible conduit is wound on the spool cartridge.

1           45.     The method of claim 43, wherein the replaceable cartridge includes a spool  
2     having a hub for engaging the flexible conduit at an adjustable position along a total length of  
3     the flexible conduit to adjust the fixable variable length.

1           46.     The method of claim 43, wherein the flexible conduit is simultaneously  
2     dispensable from the replaceable cartridge from two ends.

1           47.     The method of claim 35, wherein the flexible conduit housing further includes a  
2     spool for dispensing the flexible conduit to a fixable variable length.

1           48.     The method of claim 47, wherein the spool includes a hub for engaging the  
2     flexible conduit at an adjustable position along a total length of the flexible conduit to adjust the  
3     fixable variable length.

1           49.     The method of claim 47, wherein the spool includes a replaceable cartridge.

1           50.     The method of claim 47, wherein the two ends of the flexible conduit are  
2     simultaneously dispensable from the spool.

1           51.     The method of claim 35, further comprising providing a lockable spring driven  
2     winder mounted within the flexible conduit housing for dispensing the flexible conduit to the  
3     fixable variable length.

1           52.     The method of claim 51, wherein the spring driven winder is lockable with a  
2     friction retainer.

1           53.     The method of claim 51, wherein the spring driven winder is lockable with a  
2     ratchet retainer.

1           54.     The method of claim 51, wherein the two ends of the flexible conduit are  
2 simultaneously dispensable from the lockable spring driven winder.

1           55.     The method of claim 35, wherein the base and cover form a clamshell flexible  
2 conduit housing.

1           56.     The method of claim 35, wherein the interface is coupleable to a device for  
2 dispensing a fluid through the flexible conduit.

1           57.     The method of claim 35, wherein the interface is selected from a group including  
2 a clip, a strap, a clamp and a tape.

1           58.     A method of storing flexible conduit to assist in dispensing a fluid or monitoring  
2 a physiological condition, the method comprising the steps of:  
3           providing a flexible conduit housing;  
4           providing a flexible conduit; and  
5           holding the flexible conduit on a spool cartridge including a coupler for engaging the  
6 spool cartridge into the flexible conduit housing, wherein the flexible conduit housing dispenses  
7 the flexible conduit to a fixable variable length.

1           59.     The method of claim 58, wherein the fluid is insulin.

1           60.     The method of claim 58, wherein the flexible conduit is connectable to a medical  
2 sensor monitor.

1           61.     The method of claim 58, wherein the flexible conduit is connectable to an  
2 infusion device.

1           62.     The method of claim 58, wherein the flexible conduit is medical tubing.

1           63.     The method of claim 58, wherein the flexible conduit is electrical cable.

1           64.     The method of claim 58, wherein the flexible conduit is wound on the spool  
2 cartridge and two ends of the flexible conduit are simultaneously dispensable.

1           65.     The method of claim 58, wherein the spool cartridge includes a hub with a  
2 passage for engaging the flexible conduit at an adjustable position along a total length of the  
3 flexible conduit to adjust the fixable variable length.

1           66.     The method of claim 58, further comprising providing a lockable spring driven  
2 winder for dispensing the flexible conduit to the fixable variable length.

1           67.     The method of claim 66, wherein the spring driven winder is lockable with a  
2 friction retainer.

1           68.     The method of claim 66, wherein the spring driven winder is lockable with a  
2 ratchet retainer.

1           69.     A method of dispensing a fluid, the method comprising the steps of:  
2 providing a flexible conduit housing including:  
3           a flexible conduit;  
4           a base for temporarily housing the flexible conduit, the base having an opening  
5 for receiving the flexible conduit; and  
6           a cover attached to the base for substantially closing the opening; and  
7 mounting the flexible conduit housing with an interface;  
8 dispensing the flexible conduit with the flexible conduit housing to a fixable variable  
9 length;  
10 attaching a first end of the flexible conduit to an infusion device;  
11 attaching a second end of the flexible conduit to an infusion set; and  
12 dispensing the fluid from the infusion device through the flexible conduit to the infusion  
13 set.

1           70.     The method of claim 69, wherein the fluid is insulin.

1           71.     The method of claim 69, wherein the flexible conduit is held on a replaceable  
2 cartridge that is engaged to the base.

1           72.     The method of claim 71, wherein the replaceable cartridge includes a spool  
2 cartridge and wherein the flexible conduit is wound on the spool cartridge.

1           73.     The method of claim 71, wherein the replaceable cartridge includes a spool  
2     having a hub for engaging the flexible conduit at an adjustable position along a total length of  
3     the flexible conduit to adjust the fixable variable length.

1           74.     The method of claim 71, wherein the flexible conduit is simultaneously  
2     dispensed from the replaceable cartridge from the first and second end.

1           75.     The method of claim 69, wherein the flexible conduit housing further includes a  
2     spool for dispensing the flexible conduit to a fixable variable length.

1           76.     The method of claim 75, wherein the spool includes a hub for engaging the  
2     flexible conduit at an adjustable position along a total length of the flexible conduit to adjust the  
3     fixable variable length.

1           77.     The method of claim 75, wherein the spool includes a replaceable cartridge.

1           78.     The method of claim 75, wherein the first and second end of the flexible conduit  
2     are simultaneously dispensed from the spool.

1           79.     The method of claim 69, further comprising providing a lockable spring driven  
2     winder mounted within the flexible conduit housing for dispensing the flexible conduit to the  
3     fixable variable length.

1           80.     The method of claim 79, wherein the spring driven winder is lockable with a  
2     friction retainer.

1           81.     The method of claim 79, wherein the spring driven winder is lockable with a  
2     ratchet retainer.

1           82.     The method of claim 79, wherein the first and second end of the flexible conduit  
2     are simultaneously dispensed from the lockable spring driven winder.

1           83.     The method of claim 69, wherein the base and cover form a clamshell flexible  
2     conduit housing.



1           84.     The method of claim 69, wherein the interface is coupleable to a housing of the  
2 infusion pump.

1           85.     The method of claim 69, wherein the interface is selected from a group including  
2 a clip, a strap, a clamp and a tape.

1           86.     A method of using a medical sensor, the method comprising the steps of:  
2 providing a flexible conduit housing, including:  
3                 a flexible conduit;  
4                 a base for temporarily housing the flexible conduit, the base having an opening  
5 for receiving the flexible conduit; and  
6                 a cover attached to the base for substantially closing the opening; and  
7 mounting the flexible conduit housing with an interface;  
8 dispensing the flexible conduit with the flexible conduit housing to a fixable variable  
9 length;  
10 attaching a first end of the flexible conduit to a medical sensor monitor;  
11 attaching a second end of the flexible conduit to a medical sensor; and  
12 receiving signals at the medical sensor monitor from the medical sensor through the  
13 flexible conduit.

1           87.     The method of claim 86, wherein the sensor is a glucose sensor.

1           88.     The method of claim 86, wherein the flexible conduit is held on a replaceable  
2 cartridge and engaged to the base.

1           89.     The method of claim 88, wherein the replaceable cartridge includes a spool  
2 cartridge and wherein the flexible conduit is wound on the spool cartridge.

1           90.     The method of claim 88, wherein the replaceable cartridge includes a spool  
2 having a hub for engaging the flexible conduit at an adjustable position along a total length of  
3 the flexible conduit to adjust the fixable variable length.

1           91.     The method of claim 88, wherein the flexible conduit is simultaneously  
2 dispensed from the replaceable cartridge from the first and second end.

1           92.     The method of claim 86, wherein the flexible conduit housing further includes a  
2 spool for dispensing the flexible conduit to a fixable variable length.

1           93.     The method of claim 92, wherein the spool comprises a hub for engaging the  
2 flexible conduit at an adjustable position along a total length of the flexible conduit to adjust the  
3 fixable variable length.

1           94.     The method of claim 92, wherein the spool includes a replaceable cartridge.

1           95.     The method of claim 92, wherein the first and second end of the flexible conduit  
2 are simultaneously dispensed from the spool.

1           96.     The method of claim 86, further comprising providing a lockable spring driven  
2 winder mounted within the flexible conduit housing for dispensing the flexible conduit to the  
3 fixable variable length.

1           97.     The method of claim 96, wherein the spring driven winder is lockable with a  
2 friction retainer.

1           98.     The method of claim 96, wherein the spring driven winder is lockable with a  
2 ratchet retainer.

1           99.     The method of claim 96, wherein the first and second end of the flexible conduit  
2 are simultaneously dispensed from the lockable spring driven winder.

1           100.    The method of claim 86, wherein the base and cover form a clamshell flexible  
2 conduit housing.

1           101.    The method of claim 86, wherein the interface is coupleable to a housing of the  
2 medical sensor monitor.

1           102.    The method of claim 86, wherein the interface is selected from a group including  
2 a clip, a strap, a clamp and a tape.